

CLAIMS

1. (Currently Amended) An apparatus for automatically detecting the presence of a ~~strobe~~an external device in an earphone jack port of a mobile terminal, the apparatus comprising:
~~connection means~~connection unit for electrically connecting an earphone/microphone set or a ~~strobe~~an external device to the mobile terminal and generating level information according to a connected device if one of an earphone/microphone set or a ~~strobe~~an external device is connected to the mobile terminal, wherein the level information has different level value according to a connected external device;
~~sense means~~sensor for determining whether the earphone/microphone set or ~~the strobe~~the external device is electrically connected to the ~~connection means~~connection unit according to the level information and generating an indication signal containing a determination result;
~~main process means~~main processor for generating a control signal to control the earphone/microphone set or ~~the strobe~~the external device according the indication signal; and
~~strobe control means~~external device controller for controlling ~~strobe~~the external device by receiving the control signal from the ~~main process means~~main processor,
wherein the external device controller enables the connected external device automatically, when the external device is connected to the connection unit.

2. (Currently Amended) The apparatus as recited in claim 1, further comprising:
~~call control means~~call controller for generating a call signal indicating whether or not the mobile terminal is used for originating a call; and
earphone/microphone set ~~control means~~controller for controlling an earphone/microphone to pass voice signal to a voice input/output unit in the mobile terminal according to the level information and the call signal.

3. (Currently Amended) The apparatus as recited in claim 1, wherein the ~~main process means~~main processor generates the control signal to enable the ~~strobe control means~~external device controller if the indication signal represents that the ~~strobe~~external device is connected to the connection unit and generating a shot signal and a charge control signal.

4. (Currently Amended) The apparatus as recited in claim 23, wherein the ~~strobe control means~~external device controller controls the ~~strobe~~external device according to the shot signal and the charge control signal from the ~~main process means~~main processor.

5. (Currently Amended) The apparatus as recited in claim 1, wherein the ~~main process means~~main processor generates the control signal to enable the earphone/microphone set ~~control means~~controller if the indication signal represents that the earphone/microphone set is connected to the connection unit.

6. (Currently Amended) The apparatus as recited in claim 1, wherein the ~~connection means~~connection unit generates the level information having a voltage level and the ~~sense means~~sensor generates the indication signal by analyzing the voltage level in the level information.

7. (Currently Amended) The apparatus as recited in claim 1, wherein the ~~connection means~~connection unit includes:

a microphone/charge-control signal end for providing a connection to both the microphone end of the earphone/microphone set plug and the charge-control signal end of a ~~strobe plug~~an external device plug;

a speaker/shot end for providing a connection to both the speaker end of the earphone/microphone set plug and the shot end of the ~~strobe~~external device plug;

a switch end for making known which of the following, the earphone/microphone set or the ~~strobe~~external device, is electrically connected to the ~~earphone-microphone set/strobe connection means~~earphone-microphone set/external device connection unit while the ~~earphone-microphone set/strobe connection means~~earphone-microphone set/external device connection unit is physically connected to the speaker/shot end; and

a ground end for providing a connection to the ground end of the earphone/microphone set plug as well as the ground end of the ~~strobe~~external device plug.

8. (Currently Amended) A method for automatically detecting the presence of a ~~strobe~~an external device in an earphone jack port of a mobile terminal, the method comprising the steps of:

a) obtaining level information from a connection unit, wherein the level information has different level value according to a connected external device;

b) determining ~~whether an earphone/microphone set or a strobe~~ what external device is electrically connected to the connection unit according to the level information;

c) enabling ~~a strobe control unit~~ an external device control unit if the ~~strobe~~ external device is electrically connected to the connection unit as a determination result of step b); and

d) enabling the earphone/microphone set control unit if the earphone/microphone set is electrically connected to the connection unit as a determination result of step b).

9. (New) The apparatus as recited in claim 1, wherein the external device is a strobo, wherein the external device controller enables the connected strobe automatically, when the strobe is connected to the connection unit and a digital camera is used.